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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,283	08/30/2001	Hyo-Sang Kim	005489.P004	2389

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EXAMINER

HEALY, BRIAN

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/944,283

Applicant(s)

KIM ET AL.

Examiner

Brian M. Healy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-47 is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-10, 12 and 19-26 is/are rejected.
- 7) ☒ Claim(s) 7, 11 and 13-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/022,413.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: *Brian Healy*

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## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 27-47 are allowed.

None of the references of record teaches or suggests a method of constructing an optical filter and the acousto-optic filter comprising heating an exposed section of an optical fiber, allowing the section to cool and acoustically coupling an acoustic wave to the optical fiber to generate a flexural wave traveling along the exposed section and wherein the heating of the exposed section is controlled to reduce the polarization loss of the filter.

2. Claims 7, and 11,13-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

None of the references of record teaches the specific claimed limitations such as that the core does not expand more than 20% while cooling and specific values for flame distance and the force to apply to the fibers while they are being heated.

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***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

4. Claims 1-6, 8-10, 12, and 19-26 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Kewitsch et. al., U.S.P. No. 6,169,830.

Kewitsch et. al. 830' teaches (Figs. 1-17) a method of reducing polarization dependence in the cladding layer of an optical fiber and a reduced polarization dependent fiber using the method comprising the steps of; heating a section of optical fiber 12, 100 using a hydrogen (H<sub>2</sub>) gas heating means 109 which is computer controlled along the longitudinal axis of the fiber 107, 123 so that when the section of the fiber is cooled to reduce polarization dependence in the cladding layer with the fiber being a single mode or few mode fiber and having the jacket 35, 34 being stripped before heat is applied (Note it is common industry practice to use sulfuric acid for jacket

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stripping and fabricating fibers using chemical vapor deposition), which clearly, fully meets Applicant's claimed limitations.

The following references are also cited by the Examiner as being pertinent prior art: Kim et. Al., U.S. Patent Application Publication No. U.S, 2002/004711 A1 (Figs.1-12), Mihailov et. al., U.S.P. No.6,597,839 (Note entire reference.), Kim et. Al., U.S.P. No.6,459,834 (Note entire reference.), Evans et. al., U.S.P. No.5,704,960 (Note entire reference.) and Evans et. al., U.S.P. No.5,822,487 (Figs.1-11).


Any questions concerning this office action should be directed to:

**Brian M. Healy**

**Primary Examiner**

**Art Unit: 2874**

**Phone:(703)308-2693**

  
Brian Healy  
Primary Examiner